

Report of First Meeting of ADPC Consultative Committee on Regional Cooperation in Disaster Management

I. Introduction

1. The first meeting of the ADPC Regional Consultative Committee on Regional Cooperation in Disaster Management (RCC) was held from 20-22 November, 2000 at the Siam City Hotel, Bangkok. This document contains the report of the 1st Meeting. Organized by the Asian Disaster Preparedness Center (ADPC), Thailand, this first meeting of the RCC was attended by 35 delegates from 17 countries and territories and 3 observers, besides the ADPC officials. A complete list of delegates and observers attending the Meeting is given at Annex I of this report.

II. Background to establishment of RCC

2. The establishment of ADPC in 1986 was preceded by an extensive consultative process with national governments and other key organizations in several countries of the Asian region, about changing needs of countries of the region that it should address, undertaken as part of the feasibility study sponsored by United Nations Disaster Relief Organization (UNDRO) [now the Office for the Coordination of Humanitarian Operations (OCHA)].
3. ADPC's regional role of promoting risk reduction and capacity building remained unchanged even when it became an independent, non-profit regional foundation in June 1999. However the change provided a new opportunity for greater stakeholder involvement in the governance of ADPC, and in the process of ongoing needs identification and priority setting for ADPC activity. The ADPC Board of Trustees (BoT), the International Advisory Council (AC), and the Consultative Committee on Regional Cooperation in Disaster Management (RCC) were the three mechanisms established to achieve this purpose.

III. Composition and Role of RCC

4. The Advisory Council (AC) was established as per the Charter of the Center with the objective of receiving guidance and consultations from diverse international sources and in order to have wide ranging guidance. The Council includes eminent individuals and key representatives of government and stakeholder organizations from around the world with whom ADPC has collaborated closely over the years. As of November 2000 the AC has 50 members from 17 countries. Within the AC framework the Consultative Committee on Regional Cooperation in Disaster Management (RCC) was established in March 2000. This comprises BoT/AC members working in key Government positions in the National Disaster Management Systems of the countries of the Asian region. Membership of the committee is by invitation of the Chair, ADPC Board of Trustees. Invitations have been extended to 25 countries of the Asian region, 25 members from 20 countries have accepted the invitation of membership while acceptance of the others are awaited. A complete list of members of the RCC is given at Annex II of this report

5. The primary role of the RCC is to provide an informal consultative mechanism for:
 - Development of action strategies for disaster reduction in the region
 - Promotion of cooperative programs on a regional and sub-regional basis
 - Guidance for the work of ADPC and for its future directions

IV. Objectives of the 1st meeting of RCC

6. The key objectives of the first meeting of Consultative Committee were to:
 - **Identify disaster-related needs and priorities of Asian countries**
 - **Identify areas for promoting regional and sub-regional co-operation, including ways to enhance effectiveness of existing mechanisms**
 - **Review the membership and role of RCC**
 - **Provide inputs to current and planned programs of ADPC.**

V. Opening Ceremony

7. The Opening Ceremony of the Meeting was held at 0900 hrs on Monday 20 November 2000, and was presided by Ambassador Nitya Pibulsonggram, Permanent Secretary of the Ministry of Foreign Affairs of Thailand. Dignitaries comprising Ambassadors, Minister-Counsellors from Embassies in Bangkok, senior officials from UN Agencies and international organizations including FAO, UNHCR, UNEP, ESCAP, AIT, ICRC, ADPC partner organizations, international NGOs, members of the ADPC Board of Trustees, and the media attended the Ceremony. A list of attendees at the Opening Ceremony is given at Annex III of this report. In his welcome address, Dr. Suvit Yodmani, Executive Director, ADPC outlined the major objectives of this meeting as follows:

- a) to assess and share the disaster management priorities and experiences of countries of the Asia-Pacific region.
- b) to identify mechanisms for promoting sustainable regional cooperation among countries of the Asia-Pacific region in the area of disaster management.

8. In his opening address, Ambassador Pibulsonggram advocated the need for a three-pronged approach to development planning: economic and social development, environmental issues and disaster preventing concerns. The United Nations Environment Programme (UNEP) and the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) are already helping to promote dialogue on the first two components. The ADPC's role as the convener, provider of technical resource, and facilitator of this forum is very positive for pursuing the third component of disaster management and prevention issues in the Asia-Pacific region. Ambassador Nitya expressed keen interest and willingness of the Ministry of Foreign Affairs of Thailand to support the RCC meeting and said that "it is a privilege for Thailand that ADPC has chosen Bangkok to organize this prestigious international meeting of disaster management leaders and congratulated the ADPC for coordinating such an important event which corresponds with Thailand's policy of encouraging and promoting regional cooperation in prevention and mitigation of disasters "

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9. Ms. Corazon Alma De Leon, Chairman, Civil Service Commission of the Philippines and Vice-Chairman of the ADPC Board of Trustees, proposed the vote of thanks. In her address Ms. de Leon said that the establishment and hosting of such a meeting was the realization of a long cherished dream for ADPC, and she was sure the meeting would encourage ADPC to dream bigger dreams.

10. The complete text of the addresses of Ambassador Pibulsonggram, Dr. Suvit Yodmani and Ms. Corazon Alma De Leon are given in Annex IV of this report.

VI. Introduction and Adoption of Agenda

11. The session was chaired by Ms Corazon Alma De Leon, Vice-Chair ADPC BoT, and was facilitated by Mr. A.J. Rego, Director, Planning, Development and Partner Relations, ADPC. The session commenced with the introduction of each of the RCC members and observers present. While introducing themselves members explained the role their organizations were playing in disaster management in their country and of the unmet needs and future challenges they faced, as well as the new initiatives being undertaken. Some spoke of their long association with, and the impetus provided by ADPC to promote disaster management in the Asia-Pacific region. The members expressed the need for regional cooperation in disaster management as a priority issue, and talked of the active role ADPC can play in promoting the dialogue among countries and among stakeholders from different countries.

12. The three observers from DANIDA, AusAID and UN-ESCAP attending the meeting also introduced themselves. Ms Christina Schultz of the Royal Danish Embassy, Thailand expressed her support for the ADPC’s activities in the region, particularly in Vietnam, Cambodia, and Lao PDR. Mr. Justin Shone from AusAID, Thailand, underscored AusAID’s commitment to the ADPC’s initiative by funding the organization of the RCC meeting. The ESCAP representative, Mr. Huub Van Wees, conveyed greetings on behalf of Mr. Kim Hak-Su, Executive Secretary ESCAP and Mr Cengiz Ertuna, Director, Environment and Natural Resources Management Division, ESCAP and spoke of the importance of making scientific findings regarding natural hazards available to the decision-making community and others in an easily comprehensible language.

13. Dr. Suvit Yodmani, Executive Director, ADPC, explained the objective of the first RCC meeting. He spoke of the ADPC’s growth and evolution as an eminent center of

disaster management in the Asia-Pacific region over the years, and its obligation to promote regional cooperation in this important area through an important forum like the RCC.

14. The agenda for the meeting was discussed by the members. After queries on the structure of some sessions, changes in the title of presentations by some members, and acceptance of an additional presentation by one member, the revised agenda was adopted by the meeting. The agenda is given as Annex V of this report.

15. The meeting then proceeded with the election of a Chair. Dr. Tairjing of Thailand proposed the name of Ms. Corazon Alma De Leon, Philippines as the Chair of meeting, which was seconded by Dr. Melgabal S B Capistrano from the Philippines and unanimously endorsed by all members present.

16. The Chair proposed the constitution of a Steering Committee from among the members present to facilitate the meeting, guide its deliberations and substantive outcome. The meeting elected the following to serve on the Committee:

1. China	Prof. Wang Ang-Sheng
2. India	Mr. S. K. Purkyastha
3. Papua New Guinea	Mr. Martin Mose
4. Philippines	Dr. Melgabal S B Capistrano
5. Thailand	Dr. Tairjing Siriphanich M.D.
6. Sri Lanka	Mr. M.B.C. De Silva
7. Vietnam	Mr. Dang Quang Tinh
8. ADPC	Mr. David Hollister
9. ADPC	Mr. Aloysius J. Rego

The members elected Mr. Purkyastha and Dr. Tairjing to serve as Co-Chairs of the Steering Committee.

17. The Steering Committee's first meeting held immediately after the first session emphasised that all the sessions of the RCC be utilized to articulate needs and priorities from different countries. It was also considered that a stock-taking exercise of current capacities in disaster management was important and should be undertaken. The steering committee also underscored the importance of securing political support for mitigation and that this be discussed in the plenary session.

VII. Overview of Current Programs of ADPC

18. The second session of the meeting entitled "Overview of Current Programs of ADPC and Mechanisms" was co-chaired by Mr. K.C. Kundu from Bangladesh and Mr. S.K. Purkayastha from India and was facilitated by Ms. Zenaida G. Delica, Director, Training & Education, ADPC. The session was held from 1300 hrs to 1500 hrs on 20 November.

19. Dr. Suvit Yodmani, the Executive Director of the Asian Disaster Preparedness Center, (ADPC) presented an overview of the ADPC activities, its governance and future directions. He spoke about the vision, mission and goals of the Center and emphasized the importance of a two-track approach at both the technical and policy levels, which ADPC

has now started adopting in implementing its programs. He touched on ADPC's strengths and resources and presented an overview of ADPC's program in Thailand and its relationship with other regional bodies like the ASEAN Regional Forum (ARF) and the Bangladesh, India, Myanmar, Sri Lanka, Thailand Economic Cooperation (BIMSTEC).

20. Mr. David Hollister, the Deputy Executive Director of ADPC took the lead in presenting the ADPC Programs. He introduced the six main programs of ADPC and requested each of the Directors and Program Managers to present their respective programs and projects. Ms. Zenaida Delica, Director (TED) spoke of ADPC's training activities including regional training (in Bangkok), in-country training and special training courses on demand. Mr. Kamal Kishore, Director of Information, Research and Network Support Division spoke about the information program and networking activities of ADPC. He mentioned the ADPC library and other facilities such as the database and websites that ADPC uses in the dissemination of information. Mr. Merrick Chatfield, Director of Technical Services Division talked about the active database of experts that is maintained within ADPC; and also mentioned the recent and ongoing consultancy services that ADPC has been providing including capacity building support to the national disaster management systems of the Governments of Sri Lanka and Cambodia and the State of Uttar Pradesh in India. Mr. David Hollister, Director Regional Programs together with Mr. Kamal Kishore and Mr. Rajesh Sharma, Information Manager spoke about the ADPC Regional Programs namely: the Asian Urban Disaster Mitigation Program (AUDMP); DANIDA Project in Cambodia, Laos and Vietnam; the Damage Assessment and Needs Analysis Program (DANA); DIPECHO South East Asia Regional Program; Extreme Climate Events Program (ECE) and the Program for Enhancement of Emergency Response (PEER). Mr. Aloysius J. Rego, Director of Planning, Development and Partner Relations (PDPR) Division presented the activities of the division and also highlighted the numerous country and regional partners with whom ADPC works. Finally Mr. Phornchai Chiravinijnanth, Director of Finance, Administration and Human Resources (FA&HR) Division spoke about the financial management system and human resources within ADPC.

Members recognized ADPC's unique position, responsibility and expressed their expectations of it playing a role in promoting regional cooperation among countries in the area of disaster management.....

21. Thus ADPC presented a comprehensive overview of its activities in the Asia-Pacific region, and its increasing commitment and involvement with national, sub-regional and regional programs. ADPC highlighted its success in fostering partnership with a range of international initiatives and programs. Its resources, expertise and advocacy have received a great deal of support from all the member countries. Members recognized ADPC's unique position, responsibility and expressed their expectations of it playing a role in promoting regional cooperation among countries in the area of disaster management

VIII. Overview of Current Disaster Management & Coordination Mechanisms in the Region

22. In the same session, Mr. Aloysius J. Rego, Director, PDPR introduced the members to the existing international and regional coordination and cooperative mechanisms and briefed them on their current activities. Existing sub-regional cooperative mechanisms in disaster management highlighted were:
- Association of South East Asian Nations (ASEAN) Experts Group on Disaster Management (AEGDM)
 - BIMSTEC (Bangladesh, India, Myanmar, Sri Lanka, Thailand Economic Cooperation)
 - Greater Mekong Sub-Region (GMS)
 - ASEAN Regional Forum Inter-Sessional Meetings on Disaster Relief (ARF-ISMDR)
 - South Asian Association for Regional Cooperation (SAARC)
 - South Pacific Applied Geoscience Commission (SOPAC)
 - Central Asia Regional Economic Cooperation – (CAREC)
 - SAGIP
23. Important international cooperation mechanisms in disaster management highlighted were:
- International Decade for Natural Disaster Reduction (IDNDR) and its successor International Strategy for Disaster Reduction (ISDR)
 - ProVention Consortium of World Bank
 - Asian Development Bank
 - International Search & Rescue Advisory Group (INSARAG)
 - Asia Pacific Disaster Information Regional Working Group (APDIRWG)
24. Mr. David Hollister, Deputy Executive Director of ADPC spoke about the recently established ProVention Consortium by the Disaster Management Facility (DMF) of the World Bank and of ADPC's membership in the Steering Committee of this Consortium. Mr. Hollister mentioned the United Nations International Strategy for Disaster Reduction (UN-ISDR) the successor Secretariat of the IDNDR and announced that ADPC is a member of the UN Inter-Agency Task Force. Mr. Rego presented the activities of the ARF Inter-Sessional Meetings on Disaster Relief (ISM-DR) and the ASEAN Experts Group on Disaster Management (AEGDM) in which ADPC is playing a technical support role and assisting in the implementation of various follow up projects. Mr. N.M.S.I. Arambepola, Project Manager, AUDMP, presented the SAARC initiatives in disaster management. Mr. Rego also introduced the activities of SOPAC whose recently established Disaster Management Unit serves to coordinate Disaster Management activities among its 18 South Pacific countries and the Asia Pacific Disaster Information Regional Working Group which held its first meeting in Canberra in August this year. The detailed presentation is enclosed in Annex VI of this report.
25. Dr. Melgabal S.B. Capistrano from Philippines spoke about the initiative of SAGIP undertaken by Philippines. "SAGIP" is a Filipino word meaning "to save" or "to rescue". This initiative provides a venue for countries to establish a network and design a functional mechanism for international response and humanitarian assistance by optimizing resources from both the military and civilian organizations and working under

a common framework. SAGIP 2000 conference was successful in providing a forum to share information and country experiences. It discussed relevant issues and concerns particularly on early warning systems, decision making and planning process, response and transition mechanism and mitigation strategies, appraised the local and international arrangements in disaster management, and stressed the need to promote protocol development for multilateral disaster response.

26. SAGIP 2000 conference was able to identify eight key areas such as effective and inter-related hazard monitoring and warning system, standard damage and needs assessment procedures, support data base of resources, planning and coordination process, standards and measures of effectiveness of humanitarian assistance, and training and research.
27. Member-countries discussed their own experiences of various forums and mechanisms in an open session. All the speakers were unanimous about the importance of **harnessing political support for disaster management. Relief activities have always received political attention. However, the challenge lies in attracting political support for mitigation. (Recommendation 1)** The ADPC has always promoted awareness about disaster management among the decision-makers in the region on an informal basis. The RCC meeting represents the first formal effort in the direction of creating a political constituency for disaster management in the Asia-Pacific region.
28. A number of countries have developed their own national capabilities in the area of disaster response. However, these capabilities are not always adequate in facing disaster situations. **While it is important to assess and enhance national strengths, it is also important to set up mechanisms of sub-regional cooperation.** The ADPC can take the important initiative of supporting these mechanisms. **(Recommendation 2)**
29. Vietnam which has served as Co-chair of ARF-ISMDR and Vice-Chair of AEGDM appreciated the useful work done by ADPC in assisting both forums, and encouraged all member countries to support the consolidation and expansion of activities of these forums. Papua New Guinea highlighted the need for the collaboration between the South Pacific Regional Program on Disaster Management and the ADPC. Mr. Basil Fernando of Sri Lanka appreciated the role of ADPC both in his own country and regionally and suggested **that it is useful for member countries to consider paying an annual contribution to ADPC in a similar way as contributions are made to international or regional organizations; or membership fees are paid to professional organizations. (Recommendation 3)** Summing up the session the Chair, Mr. Purkayastha said that the session has been very useful in providing information about regional and international initiatives in disaster management, and the role-played by the ADPC in supporting these initiatives. The ADPC's role in the region has become very important in view of the emerging needs of national and regional capability building in disaster management. In addition to providing expertise and resources, the ADPC can facilitate the exchange of national experiences and support capability-building process in a more informed environment.

IX. Lessons Learned from Recent Disasters and Programs and Future Challenges

30. The third session on *Lessons Learnt from Recent Disasters and Programs and Future Challenges* was divided into two sub-sessions with the participating countries making presentations in both the sessions. The first sub-session chaired by Ms. Cora De Leon and facilitated by Mr. Merrick Chatfield was held from 15:30 hrs to 17:30 hrs on 20 November. The second sub-session, co-chaired by Mr. Martin Mose from Papua New Guinea and Mr. Dang Quang Tinh from Vietnam and facilitated by Mr. Kamal Kishore was held from 08:30 hrs to 10:30 hrs on 21 November.
31. In these sessions, the country representatives presented risk and vulnerability assessment of natural hazards in their respective countries and spoke about strengths and weaknesses of national capabilities. They indicated the future directions needed for disaster management efforts in their countries. Certain common themes emerged in all the country presentations. All the countries are characterized by a very high level of vulnerability to natural disasters. Poverty and illiteracy in these countries compound the impact of natural disasters. The limited resources, paucity of trained human resources and lack of political commitment have made it extremely difficult for the countries to make appropriate investment in mitigation and preparedness activities. The ADPC's role in facilitating the change in direction of mitigation investment was acknowledged by all the speakers.
32. Most of the members acknowledged the limitations of relief as the only response to disasters and stressed the need for implementing structural and non-structural mitigation measures as a long-term solution. For national capability building, through human resource development, legislation, and logistics, the ADPC could effectively play the role of a facilitator and provide leadership and expertise, channel the resources through its coordination with multilateral and bilateral agencies. **(Recommendation 4)**

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33. Ms. Usha Nepal, Joint Secretary, Ministry of Home Affairs, **Nepal** presented a paper entitled Disaster Management in Nepal. In her presentation, she emphasized that Nepal's geography makes it prone to natural hazards such as floods, landslide and earthquakes. The Himalayan region, which covers almost the entire area of Nepal, is considered to be seismically very unstable. The country experienced two devastating earthquakes—in 1934 and 1988. The mass poverty, illiteracy and poor resource base of the majority of its population makes them extremely vulnerable. The people depend on forests for fuel wood, which accelerates the process of deforestation. and makes the country ecologically fragile.

34. Disaster management in Nepal is guided by the Natural Disaster Relief Act, 1982, which confers this responsibility upon the Ministry of Home Affairs. Despite limited resources, the Ministry of Home Affairs carries out the responsibility through a network of district administration. The Ministry is supported by the army, police, fire services, health personnel, International Federation of Red Cross and other NGOs. Very important work has been done to spread the awareness of earthquake in Kathmandu valley through the National Society for Earthquake Technology (NSET). Nepal commemorates January 15 as National Earthquake Safety day in the memory of 1934 earthquake. Funding for the disaster management activities in the country is limited, and comes through the Prime Minister's Aid Fund, the Central Natural Disaster Aid Fund and the District Natural Disaster Aid Fund. Necessary funds and relief materials are disbursed to the District Natural Disaster Aid Fund from the Central Fund according to the need for immediate relief assistance to the victims. It could be said that disaster management in Nepal has been more concerned with relief activities and the need for proactive mitigation has not yet been recognized in the government. It is expected that Nepal's interaction with the regional community through the forum of RCC would help it get access to a wider pool of resources, technology and expertise in disaster management.

35. Mr. Peou Samy, Secretary General, National Committee for Disaster Management (NCDM), **Kingdom of Cambodia** gave a presentation on "Challenges of Managing Recent Floods in Cambodia" and informed members that his country has been devastated by floods this year. Heavy monsoon rains from June to August has caused very serious flooding. The prolonged flooding of Mekong and Tonle Sap rivers and their tributaries contributed to extensive damages. Approximately 350 people lost their lives, besides serious damages to schools, health centers, roads, bridges, dams and the elaborate systems of water retention and control used for crop production. The Royal Government of Cambodia through the National Committee on Disaster Management (NCDM) has coordinated relief activities with the Cambodian Red Cross Society and other UN agencies and NGOs. A joint team of the NCDM in collaboration with the Cambodian Red Cross and other UN agencies has conducted damage and need assessment. The food distribution, supported by the World Food Program, has been an important feature of relief activities.

The international appeal for assistance through the UN and IFRC has helped Cambodia to the tune of more than US\$10 million. However, Cambodia expressed the need for a great deal of international support for the reconstruction efforts.

36. Mr. Haji Awang Zaidi bin Haji Md Daud, Director of Fire Services, **Brunei** made a presentation on "Fire Fighting – Brunei Experience". Brunei is a small country in area and population and highly urbanized. Its urbanization has created serious fire hazard. The Brunei Fire Services has to deal with incidences of fire on a regular basis. The presentation focused on their experience of fire management in a settlement known as Kampong Ayer (or Water Village), a settlement consisting of some 42 villages in the Brunei river, which has a great historical significance. The Government has taken several steps to reduce the fire hazard, which includes resettlement from dense areas, public awareness and education, and media campaign on the preventive side. The Government has also strengthened the fire services, introduced a program of fire fighter volunteers, and emphasized inter-agency coordination. Brunei can also contribute its experience in fire prevention and suppression to its neighboring countries as it has done in recent years in relation to forest fires.

37. Mr. Kinley Dorji, Legal Officer, Ministry of Home Affairs, **Bhutan** presented a paper entitled “Disaster Management in Bhutan”. He explained the geographical location of Bhutan and explained that Bhutan is exposed to serious seismic risks. Besides, the rainfall during the monsoon contributes to erosion in hills, and creates a serious hazard of landslides. Another contributing factor is the undercutting of slopes by fast moving rivers and streams during the period of heavy rainfalls. Flash floods are caused due to glacial lake outbursts. Besides, the floods which originate in Bhutan may also cause serious flooding in the low lying areas of India and Bangladesh. The country experienced severe flooding in July and August of this year. It has established a hydrometeorological network consisting of 110 meteorological stations and 23 gauging stations. It has also supported programs for stabilising road banks, and river training and protection works. However, Bhutan does not have a strong institutional facility for disaster management and needs support in this regard. Bhutan also requires programs and activities, which increase public awareness about the natural hazards and mitigation measures.

38. Mr. K.C. Kundu, Director General, Disaster Management Bureau, **Bangladesh** presented a paper on “Comprehensive Disaster Management Program (CDMP) in Bangladesh”. He highlighted the Government of Bangladesh’s attention to disaster preparedness, including the establishment of a Ministry for Disaster Management and Relief in 1972 and a Disaster Management Bureau in 1993 which has borne very positive results. Bangladesh is now adopting the concept of Comprehensive Disaster Management Program, involving prevention/mitigation, preparedness, response, recovery and development. A national disaster management act has been drafted, and is now under the consideration of the Government. Similarly, a national policy on disaster management and national disaster management plan are under consideration. The government is attaching a great deal of importance to both structural and non-structural mitigation. Simultaneously, a number of institutional development measures have been taken to reflect the new emphasis on disaster management, including establishment of councils and committees from the national to the zilla levels. These new institutional arrangements are working well but would benefit from inputs/exchanges from other countries. Further disaster management in Bangladesh is also dependent on the regional coordination with the neighboring countries like India, Nepal and Bhutan, and there is a strong need for an institutional set-up in this region to exchange information, expertise and knowledge, which he highlighted should be taken up as a sub-regional cooperative endeavour.

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39. Mr. S.K. Purkayastha, Central Relief Commissioner and Additional Secretary, Ministry of Agriculture, **India** gave a presentation on “The High Power Committee (HPC) on Disaster Management in India”, focusing on the new initiative in disaster management,

led by the Committee, constituted in August 1999. The mandate of the HPC is to prepare model disaster management plans at the national, state, and district levels. It is also reviewing the existing arrangements for preparedness and mitigation of natural and technological disasters, with an objective of strengthening it. The HPC has launched a nationwide consultation with the NGOs, media, and experts to recommend a multi-pronged approach to disaster mitigation. The HPC has also come up with a draft National Disaster Management Act and the State Disaster Management Act. It is also emphasizing the participation of private sector, and the need for promoting the regional and international coordination mechanisms. The main concerns of disaster management efforts are: equity, quality of relief, and attention to vulnerable sections of society.

40. Prof. Wang Ang-Sheng Vice President of RCND, Chinese Academy of Science, Director of the Center for Disaster Reduction, CAS, Institute of Atmospheric Physics and Dr. Zheng Yuan-chang Deputy Director, Secretariat of China National Committee for International Decade for Natural Disaster Reduction, Ministry of Civil Affairs, **China** jointly gave a presentation on “Integrating Disaster Risk Reduction in National Development Planning-Experience of China”. China has been prone to all the major natural disasters. Floods, drought, typhoon, forest fire, earthquake, landslides are some of the major disasters, which occur with a high frequency, and cause serious human and economic losses. However, China has strengthened its natural disaster management structure, from the national level to the local level. It has also developed a national disaster reduction plan (1998-2010) which has specific projects integrating disaster risk reduction in national development planning. The national disaster reduction plan provides guidelines for the local governments to form their plan and improve the capacity by implementing priority projects. China has also developed the National Monitoring, Forecasting and Early Warning system. A number of special agencies such as State Oceanic Agency and China Seismological Agency are supporting the national plan. The government has also invested in developing facilities and logistics for disaster management. China is setting up its National Disaster Reduction Center in Beijing, which will be formally opened in June 2001 and looks forward to cooperation with all countries.

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41. Mr. W. B. J. Fernando, Director, National Disaster Management Center, **Sri Lanka** presented a paper entitled “Preparation of National Disaster Management Program in Sri Lanka” and spoke about the preparation of the National Disaster Management Plan. The plan which has been prepared with the assistance of the UNDP and the ADPC, addresses different types of hazards in Sri Lanka and lays down a scheme of responsibilities for handling these emergency situations. The plan is based on a national policy, which includes a multi-hazard assessment, response plan and mitigation strategy.

42. Dr. Melgabal SB Capistrano, Administrator, Department of Civil Defence, **Philippines** gave a presentation on “The Philippine Disaster Management System”. He highlighted that a study on the vulnerability of countries to natural disasters for the period 1900-1990, conducted by the Center for Research on the Epidemiology of Disasters, concluded that Philippines is the most disaster-prone country in the world. The country is vulnerable to all kinds of disasters—typhoon, drought, floods, landslides, earthquakes, and other technological hazards. The Office of Civil Defense (OCD), which is the executive arm and secretariat of the National Disaster Coordinating Council (NDCC), is the agency primarily responsible for disaster management in Philippines. Through its 16 regional centers, it coordinates and implements the civil defense and disaster mitigation programs at the regional levels. The NDCC is the highest policy-making body for disaster management, which includes the senior most officials of all the departments, and the armed forces. There are also disaster coordinating councils at the regional levels. The OCD is investing considerable resources in improving emergency management information systems and early warning systems. It is improving the protocol for rapid needs and damage assessment. It has also established a system for efficient entry of International Humanitarian Assistance Teams in the event of a disaster in which the country would need external help. The Government of Philippines is taking a number of steps to strengthen institutional arrangements, decentralize the implementation, and making disaster management operations more professional and efficient.

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43. Mr. Dang Quang Tinh, Deputy Director, Department of Dyke Management and Flood Control, **Vietnam**, presented a paper on Flood Management/Mitigation in Vietnam and talked about the high level of vulnerability in Vietnam. Typhoon Linda in 1995, subsequent drought in central part of Vietnam and the annual floods since 1998 have caused extensive losses to Vietnam in human and economic terms. The country has learnt a number of lessons through these experiences of disasters. An important lesson is the emphasis on public education and spreading information among people about the hazards and counter-measures. The second important lesson is the kind of preparedness, which suits local conditions. Modern means of communication and helicopters are not very effective in dealing with floods of high velocity. It is necessary to construct buildings on elevated grounds which can serve as shelters for evacuated people, and where relief can be reached easily. The flooding in Vietnam has important regional dimensions due to sharing of the Mekong river basin among the neighboring countries of China and Cambodia. Mr. Tinh proposed a feasibility study for the construction of a cross channel to drain the Mekong flood water into the sea.
44. Ms. Cheng-chung Hsia, Director General, Urban and Housing Development Department, Council for Economic Planning & Development Executive Yuan, **Chinese Taipei** made a presentation on the recent earthquake on September 21, 1999 in which around 2500 people died, and about 100,000 buildings collapsed. After the earthquake, the

Government's first priority was to carry out the reconstruction work in the affected areas. While implementing the reconstruction program, the government is seeking to implement a number of mitigation measures related to land use, geological survey of the area, and introduction of earthquake resistant design. It is also enacting the Disaster Prevention and Rescue law, setting up the emergency communications network, and improving the disaster management capacity. The government has sought the participation of private sector in the reconstruction program.

45. Col. Odkhuu Urjin Chairman of State Board of Civil Defence, Deputy Chairman of State Standing Emergency Commission of **Mongolia** made a presentation on "Snow Storms in Mongolia". He highlighted the severe snowstorm the country experienced last year, and the hardship it caused to a large number of people. The snowstorm has been devastating for livestock, which is the mainstay of the people of Mongolia. Almost 30 percent of livestock perished due to snowstorm last year. Mongolia also experienced a severe drought in the year 2000, and almost 60 percent of the country was affected by the drought. The drought also caused forest fires. As the country reels under a severe ecological impact, it does not have sufficient financial resources to mitigate these hazards. The country needs modern means of communication, vehicles, heating material, and energy to meet the difficult situation it is often faced with.
46. Mr. Otar Tavelishvili, Head of the Department of Extreme Situation and Civil Defence, Ministry of Internal Affairs of **Georgia** made a presentation on "Regional Coordination in Disaster Management". Central Asia is one of the most disaster-prone regions. All kinds of disasters—drought, floods, earthquakes, avalanches, ice torrent—strike the country very frequently. The Government has set up a Department of Emergency Situation in 1996 in the Ministry of Internal Affairs. However, it does not have a high level of resources and expertise in dealing with disasters. The collapse of Soviet Union has destroyed the rich technological basis of civil defense. There is a need to set up a strong institution, which can help the country in training and research. The country representative sought the ADPC's assistance in setting up a regional center in disaster management.
47. Col. Ali Al Nawasreh, Director of Studies & Planning Dept, Jordanian Civil Defense, the Hashimite **Kingdom of Jordan** circulated two papers on the "General Directorate of Civil Defence, Jordan" and "The Possible Disaster Occurrence In Jordan and The Role Of The Concerned Parties In Response".
48. Mr. Mustafa Taymaz General Director, The Ministry of Public Works and Settlement, General Directorate of Disaster Affairs, **Republic of Turkey** though not able to attend the meeting had forwarded to ADPC a paper on the Eastern Marmara Earthquake and the Following Planning and Reconstruction – Efforts Towards a Sustainable Future.
49. Mr. Kamal Kishore of the ADPC made a presentation on the Extreme Climate Events (ECE) produced by El Niño and La Niña effect. The ADPC has taken up a program to study the impact of the climatic phenomenon and improve forecasting system with an objective of taking suitable precautions and minimizing the effect. The impact of El Niño and La Niña depends upon vulnerability of social and economic system and the resilience of different sectors to adapt to the system. It is most important to improve the forecasting system, which means (a) there must be a sufficient lead-time, (b) the forecast should be easily understandable, (c) it should be reliable, and (d) the relevance and level of details of

forecast must be appropriate for the users. Mr. Kishore also pointed to some of the constraints in making the forecast, which include low resolution of images, lack of adequate capacity at the local level to interpret and transmit local forecast, and the lack of inter-departmental coordination in conducting preparedness exercises. The climatic events influenced by El Niño and La Niña are multi-disciplinary in nature and impact, and these issues must be addressed by all the concerned state and international agencies in a more integrated manner.

50. Mr. Loy Rego of the ADPC gave a presentation on “Technological Hazard Management in Asia” and spoke about the new initiatives taken by the ADPC in technological hazard management in the wake of major industrial disasters in the 1980s. Major international initiatives included the ILO’s Major Accident Hazard Control (ILO-MAHC), the Awareness and Preparedness for Emergences at Local Level Program (APELL) of the United Nations Environment Program, International Council of Chemical Associations’ Responsible Care Program, and the World Health Organization’s International Program on Chemical Safety. The ADPC has become the Regional Collaborating Center for the APELL program in the Asia Pacific. It is conducting regional seminars, workshops, and training programs for specific target groups. In its training and planning activities, the ADPC has emphasized information dissemination on industrial and chemical hazards, emergency response, and communications. It has included evaluation of risks, integrated planning and public education in its country-based activities. ADPC is planning a new regional program in cooperation with UNEP on “APELL in South East Asia”.

51. Mr. Rajesh Sharma of ADPC made a presentation on “Seismic Risk Assessment Program in Nepal and Indonesia”, highlighting activities supported under the Asian Urban Disaster Mitigation Program (AUDMP). The Indonesia Urban Disaster Mitigation Program (IUDMP) has undertaken the seismic risk assessment in the Municipality of Bandung. The project, which commenced in March 1997 aims to to reduce the vulnerability of the urban population, infrastructure, critical facilities, and shelter in the Indonesian cities to the earthquake hazards, with the city of Bandung as the case study for demonstration project. The project paid close attention to the policy aspects, which included strengthening the disaster management institutions and establishing research programs in seismic mitigation. The RADIUS initiative of the UN IDNDR further supported this initiative.

The seismic risk assessment program in Nepal carried out a scenario building for earthquake in Kathmandu valley and supported a school retrofitting program. The program has created a great deal of awareness among the people and engineers in Nepal. Under this program, a Kathmandu Valley Risk Management Action Plan has been prepared. This action plan is produced to assist the Government of Nepal, other concerned agencies and the municipalities in Kathmandu Valley to reduce the earthquake risk over time, by coordinating and focusing risk management activities elaborated in the plan.

X. Key Issues and Priority Needs of Asian Countries

52. The Fourth Session comprising two sub-sessions were devoted to Key Issues and Priority Needs of Asian Countries. The first sub-session was co-chaired by Prof. Wang Ang-Sheng from China and Dr. Melgabal S.B. Capistrano from Philippines, and facilitated by Mr.

David Hollister; was held from 1130 hrs to 1230 hrs on 21 November. The session began with a plenary discussion initiated by the Co-Chairs urging all participants to share their thoughts on key needs and concerns in the member countries and ways in which the countries and ADPC could cooperate in meeting these needs.

To assist in identifying key priority needs in the disaster management sector in their countries, all participants were given a questionnaire on the first day of the meeting. The questionnaire was developed by ADPC and reviewed by the Steering Committee before distribution. A copy of the questionnaire is enclosed in Annex VII of this report. All participants filled in this questionnaire and returned it to the Secretariat by 22 November. The completed questionnaire was also subsequently reviewed by the participants on their return to their countries. They urged the delegates to reflect on the needs identified by them while filling up the questionnaires. The consolidated response to the questionnaires from members is enclosed in Annex VIII of this report.

The following were key issues identified in the discussions.

Plenary discussion

53. The session aimed to identify key issues and priority needs of disaster management on a national basis in the Asia-Pacific region. A number of country representatives spoke about the national priorities in disaster management. These areas require more infusion of expertise and investment, and the ADPC can play a catalytic role.
54. Mr. Purkayastha, India's representative expressed his concern over disasters arising from water management practices in the country. **While flooding is a serious problem in certain parts of the country, it is also true that groundwater exploitation has caused the depletion of water sources in many other areas, making them more prone to drought. Water resource management is therefore a major component of effective disaster management. (Recommendation 5)**
55. Mr. Purkayastha also spoke about strengthening early warning system for cyclone mitigation, and the need to transmit early warnings among remote communities. An important national priority is integrating mitigation into development planning and allocating resources for disaster mitigation. While the relief activities receive more attention within the government, there is insufficient allocation for mitigation. The RCC can help in building regional and national consensus in these areas.
56. Mr. Kundu, Bangladesh's representative also spoke about the need for better water resource management, and greater cooperation among the neighboring countries on the implementation of national disaster management plans. Mr. Kinley Dorji, Bhutan's representative, and Ms. Usha Nepal from Nepal too agreed with the need for more regional cooperation in disaster management. Mr. Dorji identified other areas of capability building such as **building a national disaster management agency in every country, developing human resources**, and providing more training. Mr. Dorji also spoke of the need for **enacting national disaster management legislations, and requested the ADPC to circulate model disaster management legislation among all the countries. (Recommendation 6)**

57. The representative from Mongolia emphasized the need for a good Disaster Assessment and Need Analysis (DANA) system, as demonstrated by their own national experience of dealing with disasters. Mongolia was often recipient of inappropriate relief material in the wake of disasters. It is also very important to secure greater international cooperation in channeling relief assistance to the needy countries, which are not always highlighted in the media. The representatives from the ADPC also agreed with the need for developing and institutionalizing a more accurate DANA system among countries, and provided information about the ADPC's own initiative in this area.
58. Brunei's representative, Mr. Daud called for developing greater technical and legal capacity for dealing with hazards, and providing more resources for these activities. Mr. Daud also suggested that **each of the participant countries has areas of strengths, which could be utilized to build a better complementary relationship in the region. (Recommendation 7)**
59. Mr. Peou Samy from Cambodia drew attention to the relationship between a weak infrastructure and the vulnerability of rural communities. It is important that disaster preparedness should also address the issue of strengthening rural infrastructure. While Mr. Samy also spoke about the need for greater regional cooperation among Indo-Chinese countries, he also cautioned about any construction, which will obstruct downstream flow of water and aggravate the flooding problem.
60. Mr. Samy asked for ADPC's **assistance in carrying out feasibility studies for flood mitigation measures**. Mr. Kundu from Bangladesh asked for a **greater commitment of the ADPC to research activities**. There were also suggestions from India and China as to how the ADPC can increase its involvement in the entire region by **promoting small demonstration projects. (Recommendation 8)**
61. The Steering Committee discussed and revised the thematic topics resulting in five working groups based on the sub regions – East Asia, South East Asia and South Asia, with the objective to come up with suggestions and recommendations, to strengthen the institutional capability and to developing regional cooperation in the area of disaster management. There was a broad degree of consensus on areas of cooperation among countries, and all the members acknowledged the role of ADPC in promoting the agenda of disaster management on a regional and national basis. Some of the recommendations made during the deliberations on thematic concerns are as follows:
62. To facilitate intensive discussion on certain common themes of interest to a cross-section of countries, the Steering Committee reviewed and finalised 5 Thematic areas for discussion by mixed working groups as follows:
- Group 1: Building capacity, training and public support for Disaster Management and Mitigation
 - Group 2: Development of National Disaster Management Plans (DMP) and Information Systems
 - Group 3: Improving Legislative and Institutional Arrangements and Enhancing Political Will for Disaster Management and Mitigation

Group 4: Integration of Disaster Risk Reduction into National Development Process

Group 5: Scientific and Technical Inputs for Disaster Management (Including Early Warning)

Each working group was given a list of questions to discuss, reflecting lessons learned from successful implementation or good practice in any country, gaps and needs, ways and means that ADPC could provide technical support and promote cooperation and means of funding such programs. The list of questions as finalised by the working groups is given at Annex IX of this report.

Building capacity, training and public support for Disaster Management and Mitigation

63. Group I, discussed the above subject comprised representatives from Bangladesh, Brunei, Bhutan, China and Thailand, and made the following recommendations.
64. Disaster Management Committees at the local and district levels need to be established formally, and have an institutional sanctity, through force of mandate through law or administrative order, and strengthened through the participation of NGOs, voluntary groups, extension workers, and mass media. **(Recommendation 9)**

Disaster Management Committees at the local and district levels need to be established formally, and have an institutional sanctity, through force of mandate through law or administrative order, and strengthened and activated through the participation of NGOs, voluntary groups, extension workers, and mass media.....

65. The group recognized that the training and technical capabilities vary across countries. Each country has its own specific training needs, depending upon the nature of physical terrain and natural hazards. Training programs are closely related to the regulatory and legal aspects of disaster management. These **weaknesses in training systems at the national level need to be addressed through initiative in country and at the regional level. The Apex-level national institution should prepare an annual training program and have a budget line for an annual schedule of training programs. These training programs could be strengthened through regional networking and exchange of expertise. (Recommendation 10)** The ADPC was requested to organize training programs in these countries, with an objective of producing trainers. Regional training programs also help in dealing with the national disparities in training facilities and ADPC should facilitate exchange of expertise.
66. A strong need was felt for the **development of curriculum for disaster management at the level of schools, communities, public/private officials, journalists, and NGOs, and needs to be revised periodically. (Recommendation 11)**

67. **A greater constituency for disaster preparedness and mitigation need to be mobilized through public awareness campaigns and media.** The **media coverage** of all the aspects of disaster management—prevention, mitigation, and preparedness—**must be improved by imparting training to the print and audio-visual journalists.** Such media training is an important area of action. **(Recommendation 12)**

A strong need was felt for the development of curriculum for disaster management at the level of schools, communities, public/private officials, journalists, and NGOs, which needs to be revised periodically ...

68. Securing funds for starting new disaster management initiatives, is important. Funds could be mobilized through the country's internal resources, bilateral and multilateral agencies, NGOs and donor organizations, and regional networks. Funding facilities need to be set up at the national and regional levels to support disaster management activities.

Development of National Disaster Management Plans (DMP) and Information Systems

69. Group 2 comprising representatives from Brunei, the Philippines, Thailand, Sri Lanka and Vietnam discussed the above subject and made the following recommendations. **The development of a National Disaster Management Plan (DMP) is the cornerstone of a national disaster management system.** These plans must be **backed up by national legislation and prepared at different levels: national, state and district level** depending upon the nature of decentralization. An apex-level organization, the National Center for Disaster Management, should be entrusted with the responsibility of revising and updating plans. All the plans must be realistic, and must be consistent with the institutional and technological capabilities. Past experiences and lessons must be incorporated into the planning exercise. **ADPC was requested to have a system to record, archive and disseminate information of countries which have developed and need to formulate such disaster management plans.** **(Recommendation 13)**

The development of a National Disaster Management Plan (DMP) is the cornerstone of a national disaster management system and must be backed up by national legislation and prepared at different levels: national, state and district level

70. **Each country should have a Disaster Management Information System. Data collection and updating must be undertaken on a regular basis. All the data related to hazards and vulnerabilities—different kinds of hazards, population statistics, socio-economic indicators—must be part of the DMIS. The resources and organizations must**

also be included in the information system. The DMIS developed for the countries must also reflect the SWOT analysis. **ADPC was requested to develop a generic DMIS, and assist all member countries in the development of DMIS. (Recommendation 14)**

71. The **National Disaster Management Office (NDMO)s of all the countries must have their own web sites.** The NDMO's web-sites may be linked to the ADPC's web-site. The ADPC should assist in the development of NDMO web-sites. **Other media channels such as newsletters, magazines, and brochures should be used** to disseminate disaster management information. Information can be disseminated to the people and officials through formal and informal channels. **Networks should be built, through discussion forums and list serves.** ADPC can serve as a knowledge and information bank, assisting the national governments in capacity building. **(Recommendation 15)**

*Each country should have a Disaster Management Information System.
Data collection and updating must be undertaken on a regular basis.....*

72. To fund such activities, the group felt that funding should come through the national development planning process. Regional programs can be developed for dealing with disasters on a wider scale. Multilateral agencies such as the World Bank and Asian Development Bank can provide assistance to the countries, based on country needs. ADPC can be requested to help countries in locating the sources of funding, and presenting a case for financial assistance. The ADPC should also assist in feasibility studies of special projects. In order for a large-scale project to be undertaken, preparatory inputs of a specialized organization like the ADPC is needed.

Improving Legislative and Institutional Arrangements and Enhancing Political Will for Disaster Management and Mitigation

73. Representatives of Chinese Taipei, Georgia, Philippines, Sri Lanka and Thailand comprised Group III who discussed the above subject and made the following recommendations. **National Disaster Management Committee and regional and local Disaster Management Committees can be strengthened by locating them in the office of Prime Minister, Mayor, Governor, or important departments at the national, regional and provincial levels.** It is important for these committees to **meet on a regular basis,** and to **discuss programs and technical cooperation.** These committees need to initiate a political process, resulting into a greater commitment of resources and administrative attention to the disaster management activities. **(Recommendation 16)**

74. Several countries have had long years of experience of disaster management policy, legislation and functioning disaster management committees and secretariat at various levels. In the last few years **significant institutional restructuring and reform is being undertaken in several Asian countries.** The countries requested ADPC to **support these efforts through technical assistance, as well as compile and disseminate information on the experiences of different countries.** This would enable countries

developing new or modified legislation or institutional arrangements to learn from the positive and negative experiences of others. (Recommendation 17)

75. It is necessary and essential **to create awareness among the political class** about the risk and vulnerability to natural hazards and importance of pro-active disaster management and mitigation. Countries should **organize seminars / workshops for politicians** and conduct study tours to provide them with a good exposure to disaster management practices. It is also necessary to **involve politicians and senior administrators in all the important disaster management activities so as to orient them to the subject and have their support. (Recommendation 18)**

It is necessary and essential to create awareness among the political class about the risk and vulnerability to natural hazards and importance of pro-active disaster management and mitigation.....

76. It is important to secure support from the corporate sector for disaster management. Insurance, banks and software companies should be approached for supporting mitigation activities. The social and civic organizations have always been keen to support disaster management activities and their involvement should be enhanced. At the international level, the World Bank, UN agencies, ADPC and ADRC be requested to provide resources and expertise for these activities.
77. The ADPC should support the setting up of national and sub-regional centers in disaster management. It should organize seminars and conferences, which increases awareness among the cross-section of decision-makers. It should also undertake research and documentation of disaster management, and disseminate the results, targeting policy and decision-makers. ADPC experts should also visit countries and meet with political leaders from both legislative and executive arms of Government.

Integration of Disaster Risk Reduction into National Development Process

78. Group IV representatives comprising of Cambodia, India, Mongolia and Nepal discussed the above subject and made the following recommendations. **To integrate disaster management and mitigation focus into the regular national development process it is necessary to constitute expert groups on disaster management** who by making recommendations will **influence decisions of the planning bodies at the national and sub-national levels. (Recommendation 19)** Disaster management being an inter-sectoral concern, the investments in mitigation needs to be planned by various agencies at different levels. The foci of Disaster Risk Management are individuals, families and communities. Large-scale infrastructure projects, which must incorporate highest safety standards, and implement measures to reduce environmental risks will require funding from national and international sources, individuals and community level actions can be met by private sector funding and proper regulations. **Housing is an important sector for enforcing mitigation measures. Housing finance institutions can**

help in better land use planning and insist upon the enforcement of building codes, while advancing loans for housing. For housing in coastal or seismically active areas should be built to higher risk resistant standards and should not be located in the proximity of chemical factories or hazardous landfill areas. (Recommendation 20)

79. **The successful efforts of China and Thailand in making disaster mitigation a part of the national development process**, as reported to the meeting in presentations by these countries, **was appreciated**. ADPC was requested to collect more information on this subject from these and other countries so as to disseminate these good practices to other member countries. Lessons learned could also be transferred from successful experiences of implementation of the recommendations made by the expert bodies in various countries for national and sub-national adoption. It was recognized that departments of government in remote locations undertook significant innovation, which was not recognized and disseminated more widely. Such bottom up dissemination of success stories and those by effective NGOs should be done. ADPC was requested to contribute by publishing the successful experiences through its literature.
80. Finance for mitigation can be raised through the national budget. In India, the Planning Commission has decided to consider the allocation of resources for disaster management, on the basis of the recommendations of the National Center for Calamity Management. In the normal budgetary process, there is always a greater provision for response, compared to mitigation. This trend needs to be changed through a better awareness of mitigation needs among the policy-makers. The other sources of funding are international agencies and private sector. These sources must be tapped in a strategic way, which enhances the institutional capability, and introduces innovative ideas.
81. It was recognized that the need to promote regional cooperation in disaster mitigation and preparedness among politicians and senior administrators can be realized by organizing workshops with the help of Regional bodies such as ADPC. The group felt that the ADPC could play a major role in human resource development, particularly by organizing training programs for such expert groups from different countries. The ADPC should organize bi-lateral and regional workshops and conferences to build and promote a positive atmosphere for disaster management.

Scientific and Technical Inputs for Disaster Management (Including Early Warning)

82. Group 5 comprising representatives from China, Jordan, Laos and Thailand discussed the above subject and made the following recommendations. **It is necessary to bring existing information on scientific and technical issues into public domain**. This can be done by identifying those national and regional institutions that have hazard, risk and disaster management information and dialoguing with them. The scientific information regarding risk **must be conveyed in a media-friendly language. (Recommendation 21)** A great deal of scientific information can be exchanged and made available through regional and international cooperation. Such cooperation particularly in the region needs to be catalysed and ADPC was requested to explore this further with the relevant institutions.

ADPC was requested to support the development of a sub-regional joint scientific research proposal on water management in the Mekong Sub-Region by initiating a dialogue with the GMS countries and other regional organizations like MRC and ESCAP Water Resources Division.....

83. The group drew attention to the need for a number of international initiatives to be taken into account and consolidated. China and Philippines have decided to cooperate on the seismic studies. **Utilization of satellite resources** for exchange of information among countries is another example. **A great deal of excess observational capacity of satellites can be utilized for risk communication and improved prediction capacities.** (Recommendation 22) ADPC was requested to take suitable initiatives to explore these areas further. **The proposal for cooperation among Lao PDR, Cambodia, Vietnam, China, Thailand on the water management of river Mekong is an important example of regional cooperation on scientific and technical aspects of disaster risk reduction.** In particular it was requested to **support the development of a sub-regional joint scientific research proposal on water management in the Mekong Sub-Region by initiating a dialogue with the GMS countries and other regional organisations like MRC and ESCAP Water Resources Division. In future ADPC should consider taking up similar initiatives in other sub-regions and with respect to other hazards as well.** (Recommendation 23)

84. Science can also be utilized to enhance the coping capacity of people. **It is important to take into account socio-economic and cultural factors, while implementing scientific measures and research on risk reduction.** It is also necessary to provide training for scientific and technical work. A key aspect is the **involvement of the community who is the ultimate beneficiary and all intermediate users including administrators in the start up and design phase of science and technology research projects, so that these orientations and results are more user friendly.** (Recommendation 24) ADPC was requested to play a role in this regard.

85. The ADPC should facilitate the development of regional hazard maps. The promotion of bilateral and regional cooperation among countries is an important organizational mandate of the ADPC and ADPC should strive to serve as a regional focal point and information node.

XI. Identification of Opportunities for Improved Regional and Sub-Regional Cooperation

86. The fifth session on Opportunities for Improved Regional and Sub-Regional Cooperation co-chaired by Mr. Peou Samy from Cambodia and Mr. Phetsavang Sounalath from Laos and facilitated by Mr. A.J. Rego was held from 1530 hrs to 1730 hrs on 21 November. The objectives of this session was to:

- Enhance the regional and sub-regional cooperation and to have synergy in on-going work, and

- Review the work of existing mechanisms and to identify ways and means of enhancing their effectiveness.

87. Introducing the topic, Mr. Phetsavang referred to presentations in the Second Session and emphasized the importance of working with the existing sub-regional cooperation mechanisms including Association of South East Asian Nations (ASEAN), South Asian Association for Regional Cooperation (SAARC), Bangladesh, India, Myanmar, Sri Lanka and Thailand Economic Cooperation (BIMSTEC), Greater Mekong Sub-Region (GMS), Mekong River Commission (MRC), South Pacific Applied Geo-science Commission (SOPAC), Central Asian Regional Economic Cooperation (CAREC). This would avoid duplication of effort and resources and achieve synergy with ongoing programs. He also drew attention to international cooperation mechanisms including International Strategy for Disaster Reduction (ISDR, follow up to UN-IDNDR), ProVention Consortium of World Bank, Asian Development Bank (ADB), International Search and Rescue Action Group (INSARAG), the UN Disaster Assessment and Coordination (UNDAC) System, Asia Pacific Disaster Information Regional Working Group (APWGDIN) and while recognizing their importance urged the member countries to work closely with and in support of these initiatives to work in harmony with the global community and derive benefit from the momentum of these programs.

88. The discussions in the Session took place in two parts. The first part comprised a plenary discussion among all delegates. The second part of the Session comprised discussion in 4 sub-regional working groups as follows:

- East Asia – China, Chinese Taipei, Mongolia
- South East Asia – Brunei, Cambodia, Laos, Philippines, Thailand, Vietnam
- South Asia – Bangladesh, Bhutan, India, Nepal, Sri Lanka
- Other sub-regions – Georgia (Central Asia), Jordan (West Asia), Papua New Guinea (Pacific)

89. Each sub-regional working group deliberated on the following questions:

- What are existing disaster management coordination mechanisms in the sub-region
- How do we make their work more effective
- What additional initiatives should be taken
- How can ADPC support these activities through its ongoing program
- What new initiatives should be undertaken by the RCC and ADPC

Each working group reported back in plenary with a summary of their discussions and recommendations, which are given below.

East Asia

90. In East Asia, the sub-regional mechanisms which have a bearing on disaster management work where countries of the region participate are ARF, APEC (Asia Pacific Economic Cooperation), and Dialogue mechanism in forest and grassland fire for cooperation between China and Mongolia and the ESCAP/WMO Typhoon Committee.

91. **To improve the level of cooperation in East Asia following steps are suggested:**

- **to increase the exchange of information and expertise** through continuous interaction of senior officials, ministers and leaders facilitated through workshops and conferences

- **Add a dialogue group in APEC on disaster management**
- **Form working groups on specific disasters**, such as earthquake and typhoon, and evolve mitigation measures on a regional basis. These working groups should be **based on cooperation among scientists**
- **Exchange of scientists and managers** and preparation of cooperative programs among disaster management agencies in countries of the sub-region to identify problems to be tackled and new partnership arrangements (**Recommendation 25**)
- Raise more funds at the regional level in coordination with existing forums mentioned above to support new sub-regional initiatives in disaster management

South-East Asia

92. The existing mechanisms for disaster management in South-East Asia, are: AEGDM, ARF-DR, MRC, SAGIP, Sub-regional fire fighting arrangements for Borneo – Sumatera (SRFA) and WHO/ESCAP Typhoon Committee.
93. RCC member countries and regional organizations can **contribute to the work of the existing mechanisms in South East Asia in making them more effective by the following ways:**
- **AEGDM – Help AEGDM in the preparation an ASEAN Disaster Management Program**
 - **ARF-ISMDR – Assist in preparation of ASEAN strategy for ARF-ISMDR**
 - Help in the identification of co-chairs
 - Help design a schedule of ARF-DR meetings
 - **MRC – Facilitate information sharing on rainfall and river flow data**
 - **Help promote flood control management on MRC Agenda**
 - **SAGIP – Help finalize protocol for international disaster response and humanitarian relief**
 - **SRFA – Enhance capacity of some of the member countries to operationalize the SRFA plan to develop ASEAN agreement on trans-boundary haze pollution and forest fire prevention and suppression**
 - **Typhoon Committee – Help enhance early warning information sharing and development of practical programs (Recommendation 26)**
94. Other additional initiatives may include Meetings, Information Exchange, New Projects and Programs, and Cooperation in Relief and Response.
95. ADPC was requested to support these activities through its on-going programs by providing technical support and capacity building. Some specific initiatives that RCC and ADPC should work together are the following:
- Matching the capabilities of various member countries and ADPC with the needs of other countries in the region
 - Develop a common regional plan for South East Asia
 - RCC should meet annually in different countries

- Regular update to RCC members on ADPC activities

South Asia

96. Existing mechanisms in South Asia are:

- South Asian Association for Regional Co-operation (SAARC)
- Bangladesh, India, Myanmar, Sri Lanka, Thailand Economic Cooperation (BIMSTEC)
- South Asia Cooperative Environment Program (SACEP)

97. However the delegates **recognised that SAARC does not as yet have a well developed arrangement for collaboration in disaster management, though disaster mitigation is on the SAARC's agenda since the Heads of Government Meeting in 1987.** The working group supported the **need for a renewed dialogue among the South Asian Countries leading towards establishment of an effective mechanism(s)** similar to those existing in other sub-regions **like ASEAN.** The need to include disaster management as a Chapter in the SAARC Charter was also identified. The working group requested ADPC to take suitable follow up action through consultation with RCC member countries from South Asia as well as the SAARC Secretariat. Ms. Nepal volunteered to report to the Secretariat based in Kathmandu on discussions at the meeting. The working group welcomed efforts by ADPC to help include disaster management in the BIMSTEC's agenda, and agreed to take this up further with their respective governments. There are bilateral agreements between various countries including Bhutan, Bangladesh, India, Nepal and Sri Lanka for cooperation in humanitarian situations and river waters management. Bilateral cooperation has also taken place in response to specific disasters such as help rendered by Nepal to India in the 1999 Landslides. **A stock taking of existing agreements and past experiences of cooperation should be undertaken, and areas where disaster management cooperation could be enhanced should be identified.** This could be similar to the exercise done by ADPC for the ARF-ISMDR. It is desirable to constitute a technical experts' working group in key areas for sub-regional cooperation. The natural disaster management organizations should interact with these technical experts' group to improve disaster management. Specialised meetings with subject focus should be organized in the priority areas as Early Warning for cyclones and Flood management in entire river basins, including across borders. **(Recommendation 27)**

Delegates recognized that SAARC does not as yet have a well developed arrangement for collaboration in disaster management, though disaster mitigation is on the SAARC's agenda since the Heads of Government Meeting in 1987 and supported the need for a renewed dialogue among the South Asian Countries leading towards establishment of an effective mechanism(s) like those in ASEAN.

98. An important specific step would be to **organize exchange of information on the areas pertinent to sub-region including recent developments such as the restructuring legal and institutional mechanisms, policy and new initiatives** like the HPC in India, the CDMP in Bangladesh and new Act in Sri Lanka, flood and cyclone

early warning and experience in response to recent disasters and new R & D outputs. In this regard the working group highlighted good work already done in the establishment of the SAARC Specialised Meteorological Research Centre (SMRC) in Dhaka, Flood Forecasting and Warning Centre, Dhaka's initiatives on cooperation with Nepal and India, CSIR's role in Indo-Sri Lanka Cooperation in science and technology for disaster management, as useful experiences and models for cooperation from which lessons can be learned. This year's droughts affected both India and Pakistan and several innovative efforts at drought management were undertaken in each country, which would benefit from sharing of experience. Thus **past and potential information exchange could serve as important cooperative activities and build confidence in the benefit of regional cooperation.**

99. The ADPC can help South Asian countries through its ongoing Extreme Climate Events program, DANA and PEER, particularly to those countries not yet covered.
100. **Sri Lanka offered to host a South Asian meeting of NDMOs, key government departments, scientific organisations and others in Colombo in June next year. Cooperation from the SAARC Secretariat would be sought. ADPC was requested to act as a facilitator/technical advisor to this and subsequent meeting as well as to follow up on other ideas for South Asian cooperation. (Recommendation 28)**

Central Asia, West Asia & Pacific

101. The fourth working group comprised Georgia, Jordan, and Papua New Guinea discussed regional cooperation with reference to the three regions of Central and West Asia and the Pacific. As there was no other representation from their regions, the national issues in these countries therefore received more attention.
102. Georgia does not have a well-established arrangement of sharing information in disaster management with the other countries in the Central Asian region. Georgia also faces a serious problem of securing logistical support whenever a disaster strikes. **There is certainly a need for stronger regional cooperation in disaster management in the Central Asian region particularly with respect of its neighboring countries, i.e. Azerbaijan and Armenia.** A request was made to the ADPC to send its representatives to Georgia to study the **feasibility of setting up a regional center** in Georgia, and **supporting** it in its national efforts at **improving its disaster management systems. (Recommendation 29)**
103. Jordan has been able to secure good support from international agencies during humanitarian situations. It has also training arrangements with Cranfield University, U.K., and Wisconsin University, USA. There is Euro-Mediterranean program in disaster management, with headquarters in Rome with which it cooperates. The program organizes exchange visits of officials from countries in the Mediterranean region. **Jordan has also proposed to set up a national disaster management center,** but it has not been able to raise financial resources for setting up this center. **It sought a closer collaboration with ADPC and welcomed a visit of an ADPC representative to the country and the West Asia Region. (Recommendation 30)**
104. Papua New Guinea is a member of South Pacific Applied Geoscience Commission (SOPAC) and active in the disaster management program. SOPAC has supported

vulnerability assessment studies in the Pacific Small Island states. The PNG also receives support from AusAid and New Zealand for its disaster management activities. The Pacific Disaster Center of the US provides early warning to the PNG and other Pacific Island states. The World Bank too has supported PNG for the post-typhoon reconstruction program. **The regional cooperation in South Pacific region therefore has a strong basis.** PNG appreciated the past cooperation with ADPC and looked forward to further cooperation particularly in the Institutional Development Project being undertaken over the next few years. It also expressed appreciation of ADPC's continued involvement with Pacific countries and **recommended that ADPC cooperate more closely with SOPAC in developing a partnership for the benefit of Pacific nations. (Recommendation 31)**

105. A number of common and recurrent themes (particularly with respect to ADPC's role) came up both during the plenary discussion in the first part of the Session and at the end of the plenary presentation by the sub-regional working groups. These are presented as follows:

- **RCC meetings should be held by rotation in different countries, and a field visit/conference could be organized in tandem. This would enable member countries to see how different countries organize their disaster management systems and “learn by seeing”. Future RCC Meetings may have a specific thematic focus.**
- **ADPC should provide a regular update on its activities and other developments in the disaster management sector to all RCC members.**
- The disaster management sector needs to advocate for greater resources to be spent. The RCC should undertake and develop its capacity to mobilize resources.
- ADPC needs to undertake raising of awareness and training for high level politicians and administrators. This may take the form of policy seminars for leaders.
- Promote increased public awareness of disaster risks and raised expectations for “culture of safety”.
- **Bring private sector into disaster management process through educating CEOs and private companies on impacts on their business and profits due to disaster. (Recommendation 32)**

XII. Future Directions of RCC

106. The Steering Committee held 2 meetings from 1930 hrs to 2100 hrs on 21 November and from 0830 hrs to 0900 hrs on 22 November and finalized an agenda for Session VI entitled Future Directions. The entire agenda for this session is given at Annex X of this report.

107. The Sixth Session was chaired by Dr. Suvit Yodmani and co-facilitated by Mr. David Hollister and Mr. Loy Rego from 0900 hrs to 1130 hrs on 22 November. Dr. Suvit Yodmani reviewed the future direction of consultative process initiated through the RCC. **The meeting welcomed the initiative of ADPC in convening this Consultative Committee, and endorsed the utility and benefit of the RCC mechanism as a useful platform for**

dialogue, exchange of experience and means of developing practical cooperative programs between member countries at the regional and sub-regional levels. The meeting confirmed the need to convene this RCC meeting periodically with a periodicity of about once a year, and requested ADPC to continue its role as convener and secretariat of these meetings. The meeting recognized the need for a significant consultative process with greater involvement of the RCC members to be undertaken in preparation of the agenda about 2 months in advance. This would enable RCC members to consult with other Ministries/Departments/Agencies in their country prior to the meeting.

(Recommendation 33)

The meeting endorsed the utility and benefit of the RCC mechanism as a useful platform for dialogue, exchange of experience and means of developing practical cooperative programs between member countries at the regional and sub-regional levels. The Meeting confirmed the need to convene this RCC meeting periodically with a periodicity of about once a year, and requested ADPC to continue its role as convener and secretariat of these meetings. .

108. Recognizing the need for ADPC to play a significant role at the next meeting and in view of a commitment of partial funding from AusAID for a meeting in 2001, **it was agreed that the second meeting of RCC be held in October / November 2001 in Bangkok or another location in Thailand.** Consultation on the exact dates in view of various religious celebrations needs to be done. The representatives agreed that **future RCC meetings should be organized annually at different venues in the Asia-Pacific region.** Nepal or China was mentioned as possible venues for the future RCC meetings. The host country may consider providing the local costs for the RCC meetings. While acknowledging the generous support provided by the Australian Government in covering most of the costs of the First Meeting, it recognized that some countries were participating in this meeting at their own costs. The meeting **noted the principle used by the ARF and other ASEAN meetings wherein all participating member countries cover costs of international travel and local stay, while costs of venue and local hospitality are covered by the meeting host. It is therefore recognized that the principle outlined above could be the basis for future meetings.** This could be discussed at the next meeting. The ADPC was requested to seek sources of funding to support the costs of future meetings, particularly travel costs of least developed countries. **(Recommendation 34)**

109. The issue of RCC expansion also came up for discussion. The meeting agreed that it was **appropriate to expand the RCC to include countries with which ADPC has been working while maintaining the principle of inviting the senior official of the National Disaster Coordinating Body to be the member.** However, leading scientific and research organizations may be invited as observers. It would be beneficial to invite representatives of the ISDR Secretariat, Pro-Vention consortium of the World Bank and ADB as observers to future meetings. **(Recommendation 35)**

110. Highlighting the role of ADPC, the meeting recognized that **ADPC should act as facilitator and convener of this consultative mechanism, serve as the regional focal point and a technical resource for the RCC in disaster management.** ADPC can contribute by operating an information dissemination center for better information exchange on-line and through other media and to maintain a regional documentation center. In this regard, ADPC requested all member countries to send policy, plans, and reports as inputs. **(Recommendation 36)**
111. The floor agreed that it would also be useful to **organize a high level Asian Ministerial Meeting on Disaster Management in about 2 years time to secure political support for disaster management** and requested ADPC to develop a proposal in this regard. **ADPC can help initiate dialogue among parliamentarians** by organizing sessions on disaster management at meetings of International Parliamentary Union, Asian Parliamentarian Forum and to consider induction sessions for parliamentarians in country. Some countries suggested ADPC to participate in such a seminar to be organized next year. ADPC can develop standard format for data collection for all the countries. **(Recommendation 37)**

XIII. Follow up Activities and Plan of Action for 2001

112. Reflecting on new projects, the floor proposed the following:
- a. ADPC should continue interaction with regional forums such as ESCAP, AEGDM which can result in fruitful partnerships and outputs. ADPC should explore collaboration of RCC with international institutions such as the IFRC, Disaster Management Facility of World Bank, and the Disaster Recovery and Reduction Program, UNDP. **(Recommendation 38)**
 - b. The meeting agreed to a common view of continuing working with regional bodies such as the SAARC, ASEAN, SOPAC and CAREC to consolidate initiatives in regional cooperation and requested ADPC to inform these bodies of the RCC and its outcomes. **(Recommendation 39)**
 - c. The meeting endorsed the concept of the publication of an Asian State Disaster Management Report 2002. It was recognized that this effort should build on current international initiatives such as the World Vulnerability Report being prepared by UNDP and ISDR and the World Disasters Report published annually by IFRC. Also the need to support publication of national disaster management reports was emphasized and ADPC was requested to develop a standard format for the same which would be useful to all member countries. The meeting requested ADPC to place a concept paper to the next RCC meeting on how to take this project further. **(Recommendation 40)**
 - d. ADPC informed the meeting of its tentative plans to hold a large multi stakeholder conference at the Asian level with cross sectoral participation from Government, UN Agencies, NGOs, Scientific and Technical Organizations, donors and regional bodies. This could be similar to the IDNDR Asia Workshop held in Bangkok in February 1999. The meeting recognized the benefit of such a meeting and endorsed the plan to hold it, and requested ADPC to prepare a concept paper for circulation to RCC Members. **(Recommendation 41)**

- e. The meeting was informed of the suggestion to prepare a Vulnerability Atlas for Asia mapping hazards, vulnerabilities and risks in countries of the Asian region. This would be similar to the Vulnerability Atlas of India and the Hazard Atlas of China. The RCC supported this proposal and requested ADPC to provide further information in this regard. **(Recommendation 42)**
- f. India proposed a regional study on drought considering the recent experiences of the country and neighboring countries and the challenges of management in water shortages in the future. The study should also look at ground water and aquifer recharge as a solution. India was requested to develop a proposal in this regard. **(Recommendation 43)**
- g. Recognizing the important role that international, regional and national institutions play in promoting mitigation measures as part of the regular development process, the meeting suggested, **(Recommendation 44)**
 - Advocacy for incentives for mitigation
 - **Dialogue with Insurance Regulatory Authority and Tariff Advisory Bodies on differential tariffs**
 - **Dialogue with Donors and Development Banks on advocacy for pre-project disaster risk assessment as part of the project development process and inclusion of mitigation conditionally in all loan allotment**
 - **ADPC capture best practices in disaster management in Asia**
- h. The meeting advocated partnership with private sector to encourage private sector to invest and involve more in disaster management and requested member countries to undertake more initiatives in this regard with ADPC facilitating. **(Recommendation 45)**
- i. The meeting endorsed the holding of sub-regional meetings – such as the South Asian Meeting in Colombo and encouraged other sub-regions to plan similar meetings. **(Recommendation 46)**
- j. The meeting endorsed a 3-page news release of the RCC to be issued by member countries and ADPC to the regional and national media.
- k. Dr. Tairjing suggested an informal communication mechanism as follow up communication and ADPC was requested to set up an e-mail/list serve for RCC members. **(Recommendation 47)**
- l. Recognizing that ADPC is cooperating with UNEP in APELL activities in Asia, RCC members were requested to keep concerned ministries and departments in respective countries informed of and cooperate with these activities focused on technological hazard preparedness and mitigation.

XIV. Closing Ceremony

113. Dr. Suvit in his closing address conveyed his satisfaction at this significant meeting. He felt that in providing a forum for the 17 participating countries for free and frank transfer and exchange of information, ideas, valuable experiences, the constitution of RCC

has realized a long cherished dream. The complete text of Dr. Suvit's speech is given in Annex XI (a) of this report.

114. The meeting concluded on a very positive note as conveyed by Prof. Dr. Krasae Chanawongse, Chairman, ADPC Board of Trustees, who felt that the meeting was appropriately timed and very effective, Dr Krasae said, "I am sure that this meeting augers well for future collaborations and partnerships among member countries of the Asian region and also between each country and ADPC. I am very impressed and happy to learn that the RCC has shown enthusiasm and determination to establish this forum on a firm basis to sustain collaboration and partnership among member countries as well as with ADPC. Also with the challenging new directions you have charted, there is increased expectations from ADPC to play qualitatively new role as a resource to, and facilitator of sub-regional and regional partnerships, networks and mechanisms. The complete text of Prof. Dr. Krasae is given in Annex XI (b) of this report.

XV. Field Visit to ADPC: Meeting with DMC-26 Participants

115. RCC members participated in a field visit to ADPC at 1400 hrs on 22 November and had the opportunity to observe the then ongoing 26th Disaster Management Course and had informal interaction with the participants.
